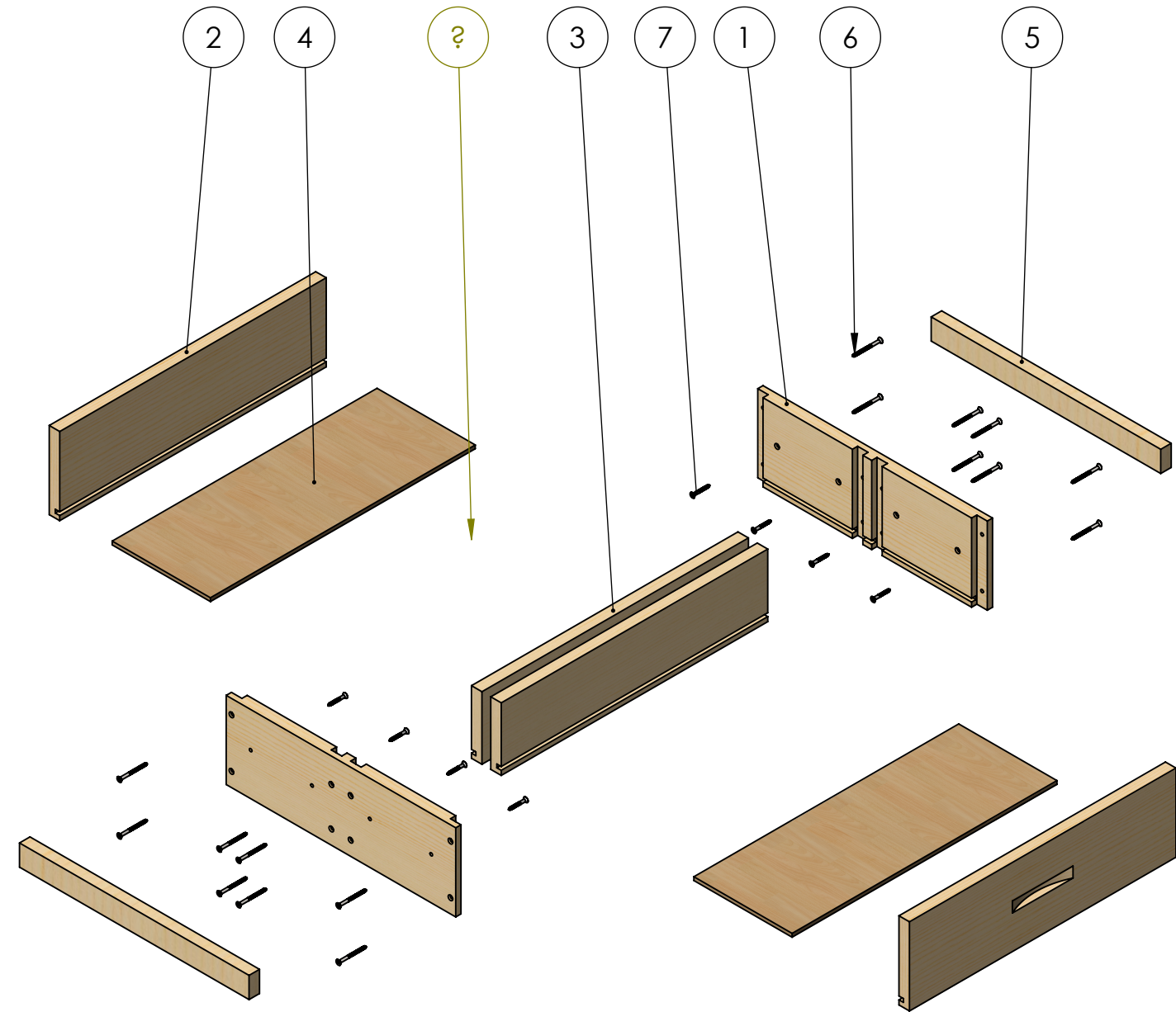
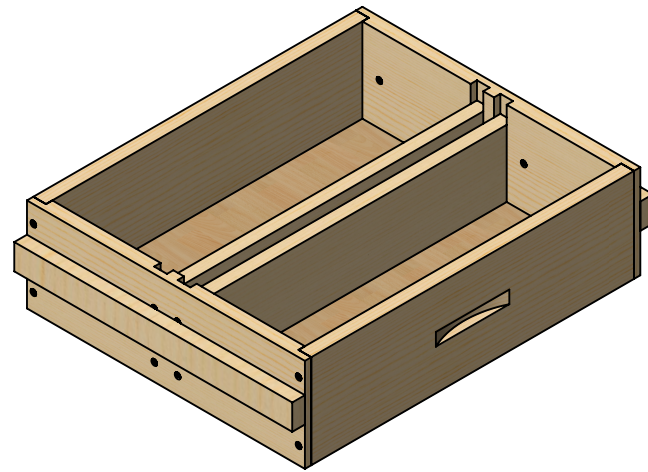




- NOTES:  
 1. ASSEMBLE SQUARE, GLUE AND FASTEN.  
 2. FINISH: PAINT OR STAIN.  
 3. REMOVE ALL SHARP EDGES.

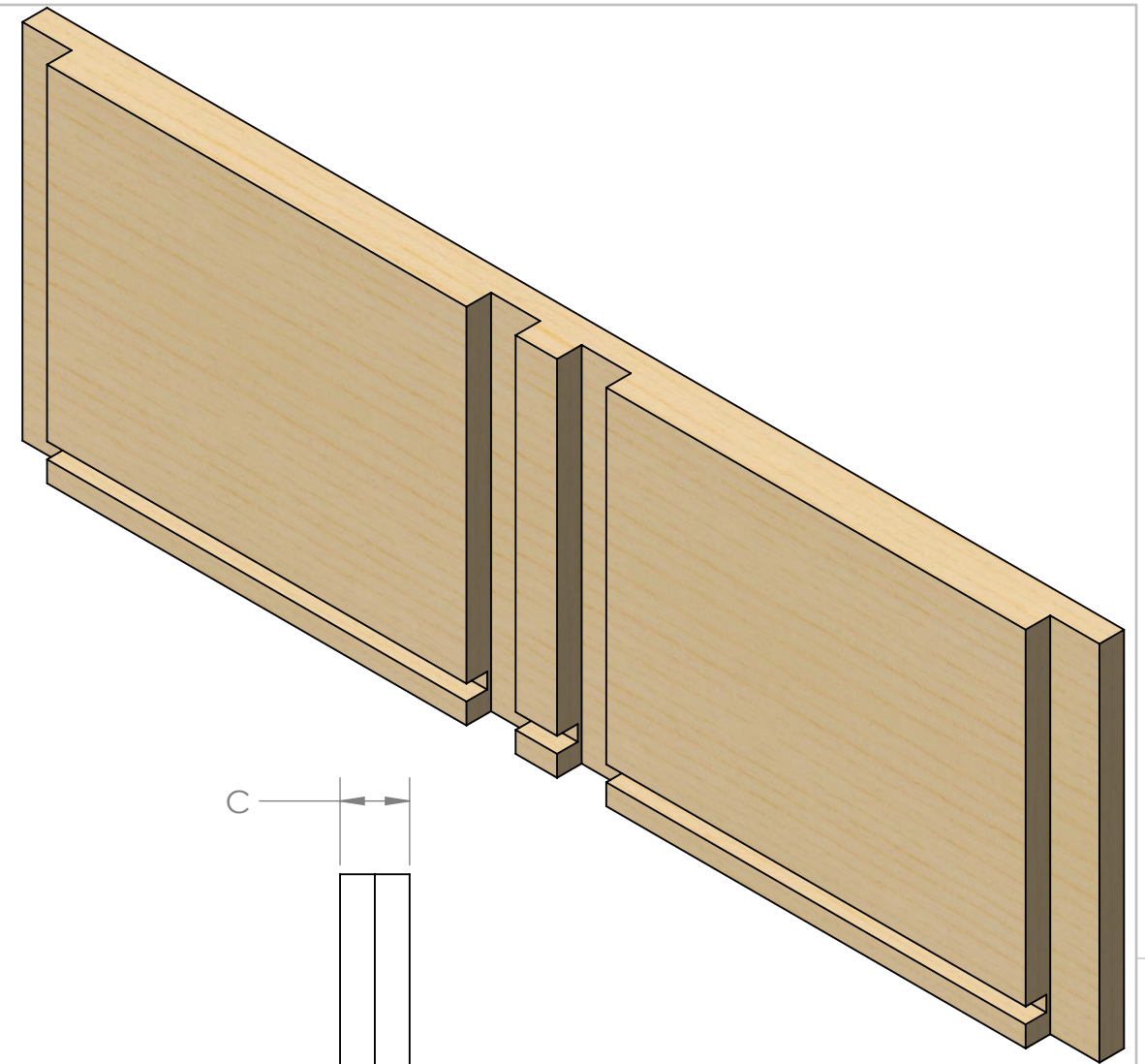
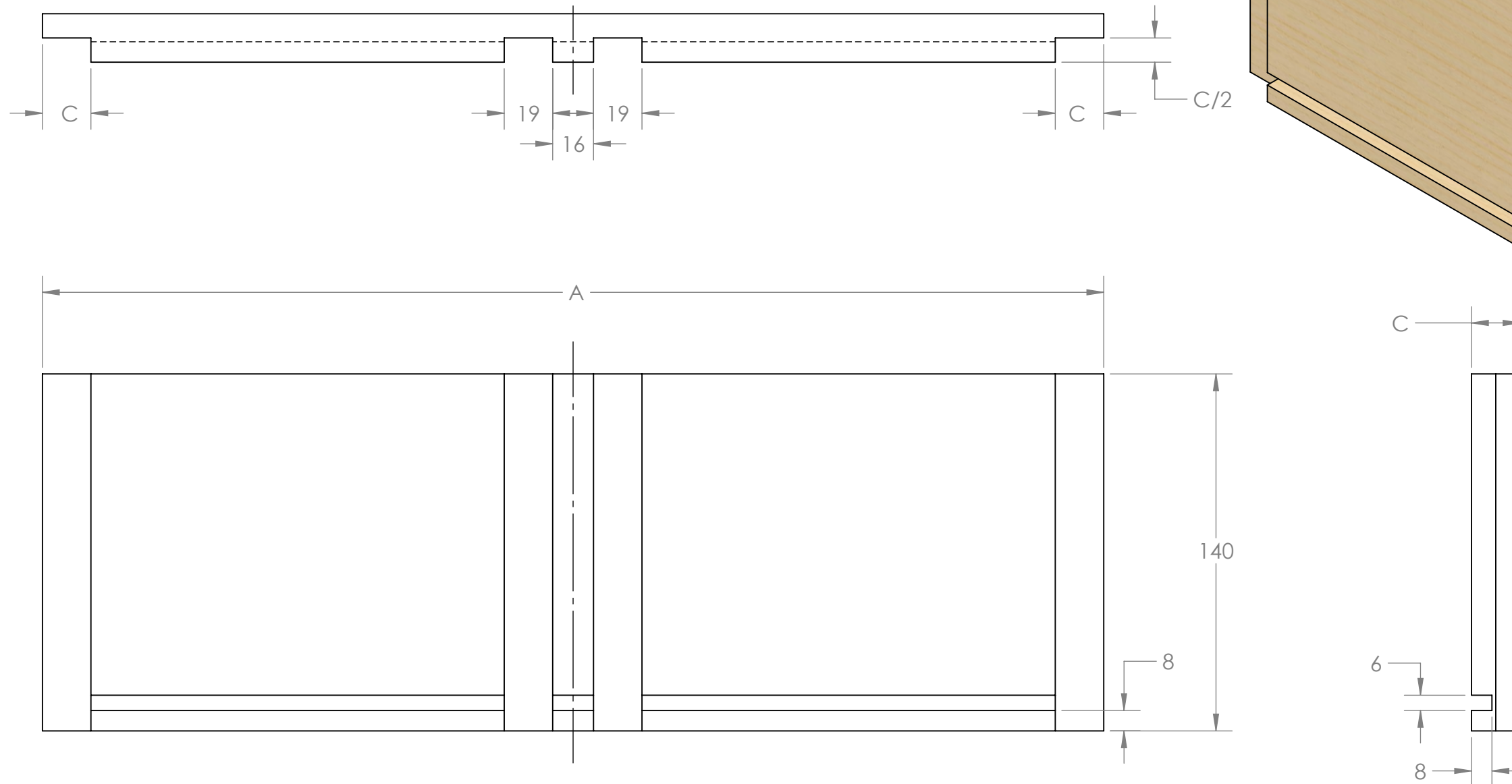


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2010M	END BOARD	2
2	2011M	SIDE BOARD	2
3	2012M	MIDDLE BOARD	2
4	2013M	BOTTOM BOARD	2
5	1010M	CLEAT HANDLE - OPTIONAL	2
6	90610A722	#8 X 50 WOOD SCREW	16
7	90610A201	#8 x 30WOOD SCREW	8

2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY <b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 <b>HONEY BEE RESEARCH CENTRE</b> THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER: BEE KEEPERS PROJECT: HIVE PRODUCTS		<b>HIVE TOP FEEDER</b>	
DRAWN BY: F. FULKERSON CHECKED BY: P.G. KELLY APPROVED: P.G. KELLY		DATE: 3/3/2024 DATE: 3/3/2024 DATE: 3/3/2024		TITLE: <b>2015M</b> - SCALE: 1:8 WEIGHT: 2834.948 g	
				SHEET 1 OF 14	

- NOTES:  
 1. MATERIAL: Pine.  
 2. FINISH: PAINT OR STAIN.  
 3. REMOVE ALL SHARP EDGES.



FEATIUERE	C = 19 mm	C = 20 mm	C = 22 mm	C = 24 mm	C = 25 mm
A (mm)	416	418	422	426	428

2010M	02	END BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED  
 DO NOT SCALE DRAWING  
 INTERPRET DIMENSIONS AND TOLERANCES  
 PER ASME Y14.5-2018  
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



SolidWorks MAINTAINED DATA  
 CHANGES SHALL BE INCORPORATED  
 ELECTRONICALLY BY THE DESIGN ACTIVITY

PROPRIETARY

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 ANY FORM, WITHOUT WRITTEN PERMISSION.

CUSTOMER  
 BEE KEEPERS

PROJECT  
 HIVE PRODUCTS

DRAWN BY  
 F. FULKERSON

DATE  
 3/3/2024

CHECKED BY  
 P.G. KELLY

DATE  
 3/3/2024

APPROVED  
 P.G. KELLY

DATE  
 3/3/2024



HONEY BEE RESEARCH CENTRE  
 THE UNIVERSITY OF GUELPH

**END BOARD**

SIZE DRAWING NO

**B**

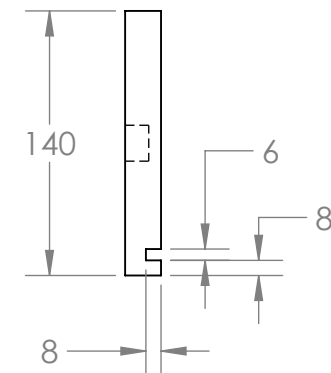
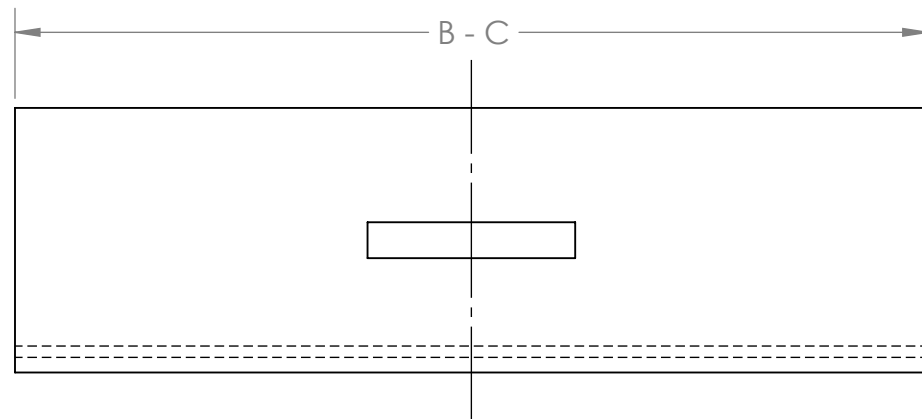
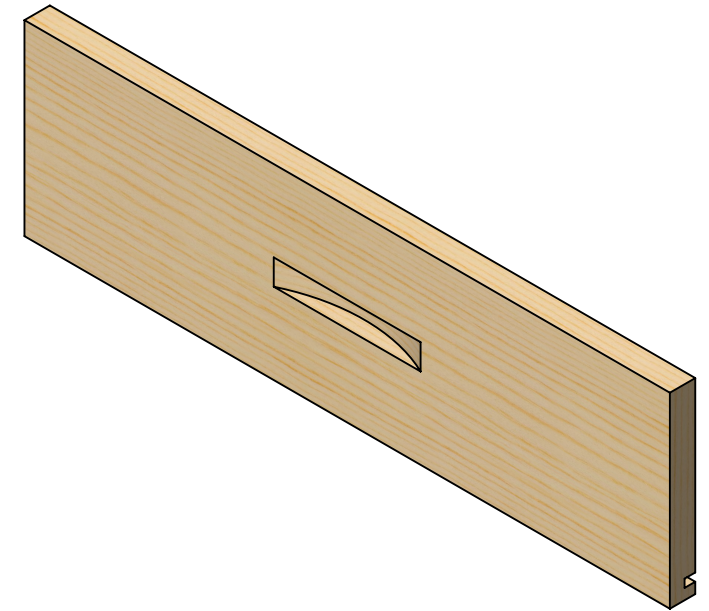
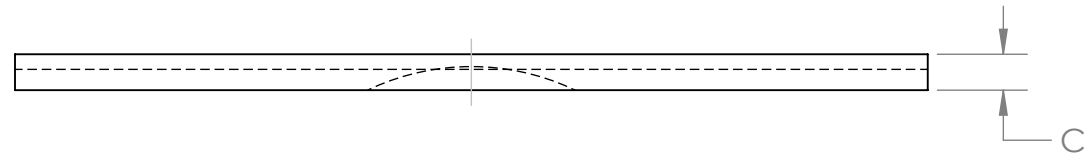
SCALE 1:2



WEIGHT 336.314 g

**2015M** -

SHEET 2 OF 14

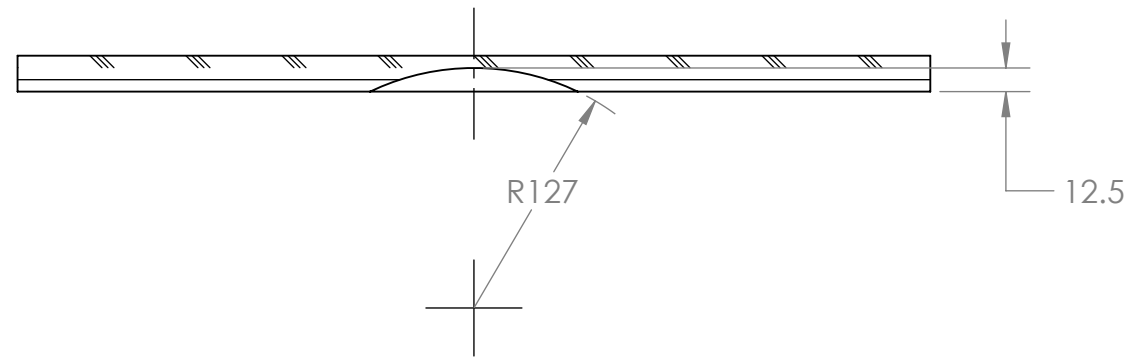
- NOTES:  
 1. MATERIAL: Pine.  
 2. FINISH: PAINT OR STAIN.  
 3. REMOVE ALL SHARP EDGES.



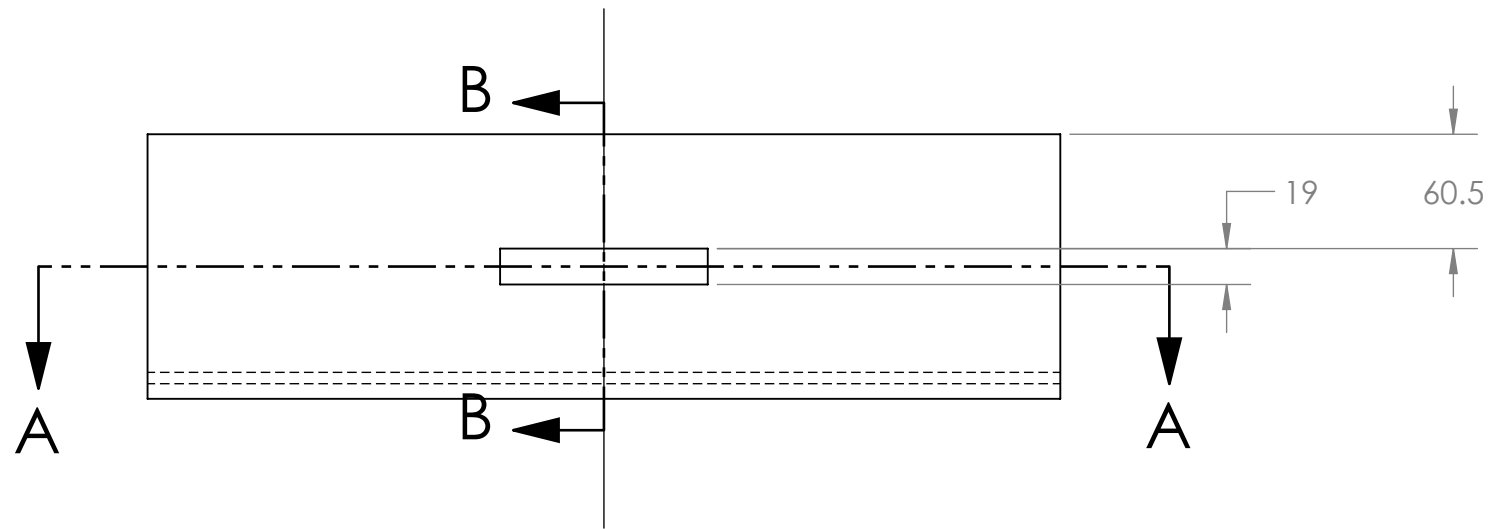
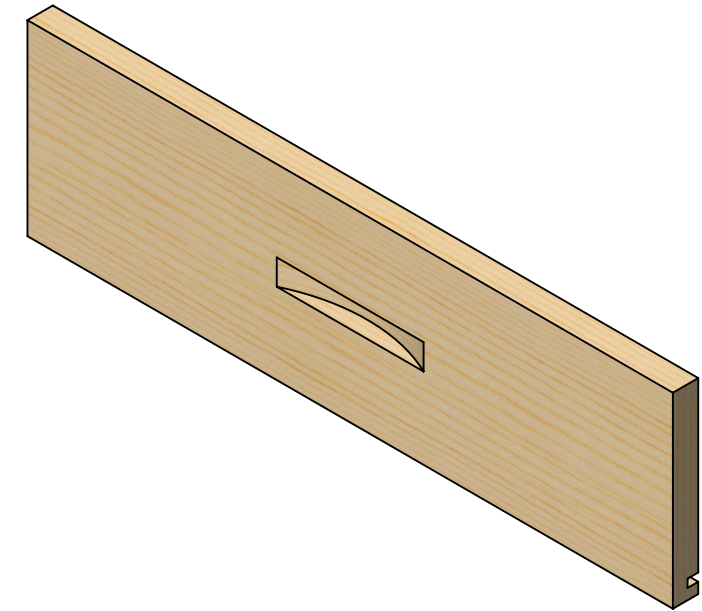
FEATIUERE	C = 19 mm	C = 20 mm	C = 22 mm	C = 24 mm	C = 25 mm
B (mm)	502	504	508	512	514
UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY <b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 <b>HONEY BEE RESEARCH CENTRE</b> <b>THE UNIVERSITY OF GUELPH</b>	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		<b>SIDE BOARD</b>	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 3/3/2024 DATE 3/3/2024 DATE 3/3/2024		SIZE <b>B</b> SCALE 1:4	
				DRAWING NO <b>2015M</b> - WEIGHT 422.966 g	
				REVISION <b>2015M</b> - SHEET 3 OF 14	

2011M	02	SIDE BOARD
PART NUMBER	REV	DESCRIPTION

- NOTES:  
 1. MATERIAL: Pine.  
 2. FINISH: PAINT OR STAIN.  
 3. REMOVE ALL SHARP EDGES.



SECTION A-A



SECTION B-B



2011M	02	SIDE BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED  
 DO NOT SCALE DRAWING  
 INTERPRET DIMENSIONS AND TOLERANCES  
 PER ASME Y14.5-2018  
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



SolidWorks MAINTAINED DATA  
 CHANGES SHALL BE INCORPORATED  
 ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**  
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 STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN  
 ANY FORM, WITHOUT WRITTEN PERMISSION.

CUSTOMER  
 BEE KEEPERS  
 PROJECT  
 HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/3/2024
CHECKED BY P.G. KELLY	DATE 3/3/2024
APPROVED P.G. KELLY	DATE 3/3/2024



HONEY BEE RESEARCH CENTRE  
 THE UNIVERSITY OF GUELPH

TITLE

**SIDE BOARD**

SIZE  
**B**

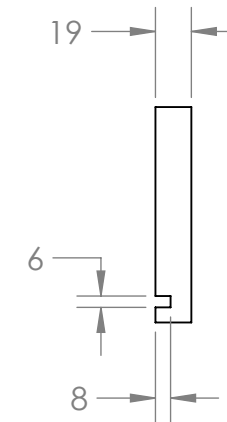
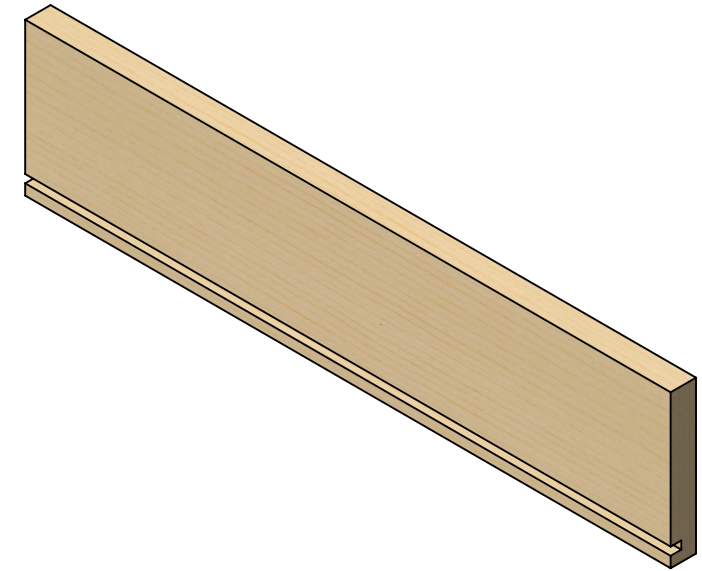
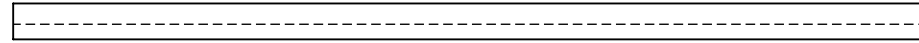
SCALE  
 1:4

WEIGHT  
 422.966 g



2015M -

SHEET 4 OF 14

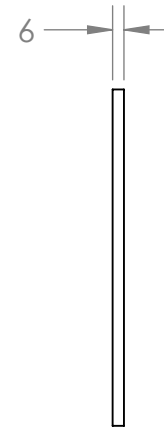
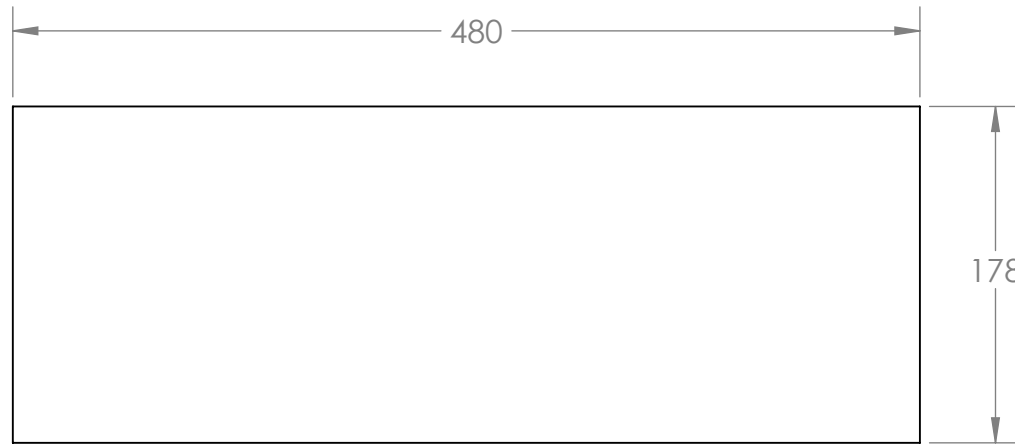
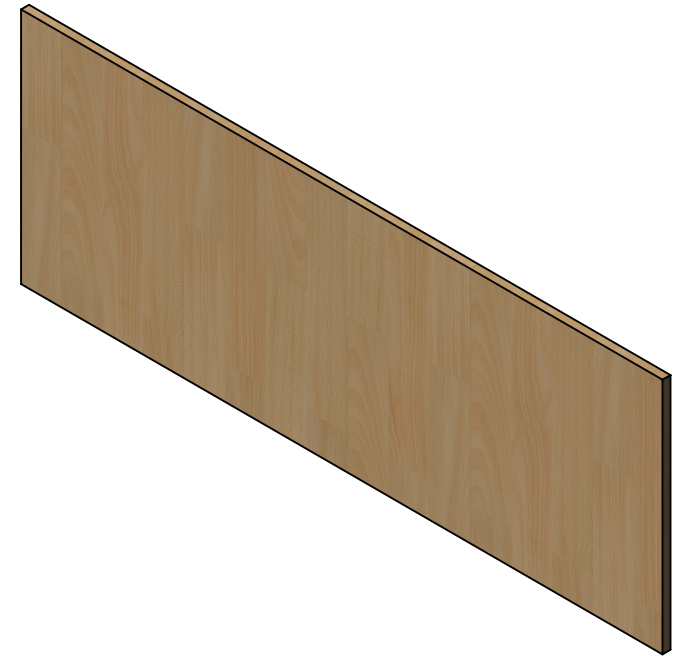
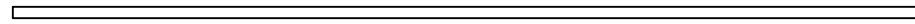
- NOTES:  
 1. MATERIAL: Pine.  
 2. FINISH: NONE.  
 3. REMOVE ALL SHARP EDGES.





2012M	02	MIDDLE BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY <b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 <b>HONEY BEE RESEARCH CENTRE          THE UNIVERSITY OF GUELPH</b>	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		<b>MIDDLE BOARD</b>	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 3/3/2024 DATE 3/3/2024 DATE 3/3/2024		TITLE <b>2015M</b> -	
		SIZE <b>B</b>		DRAWING NO. SCALE 1:4	
		WEIGHT 347.818 g		SHEET 5 OF 14	

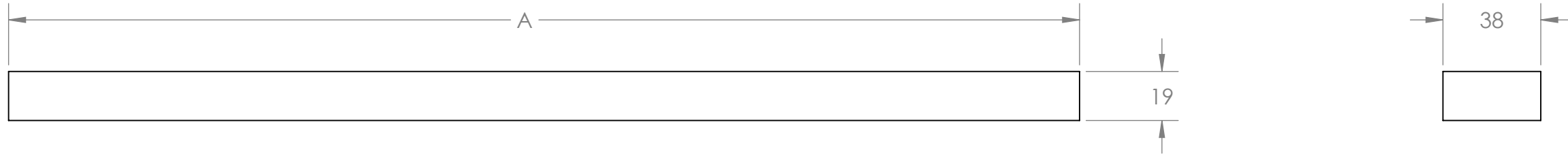
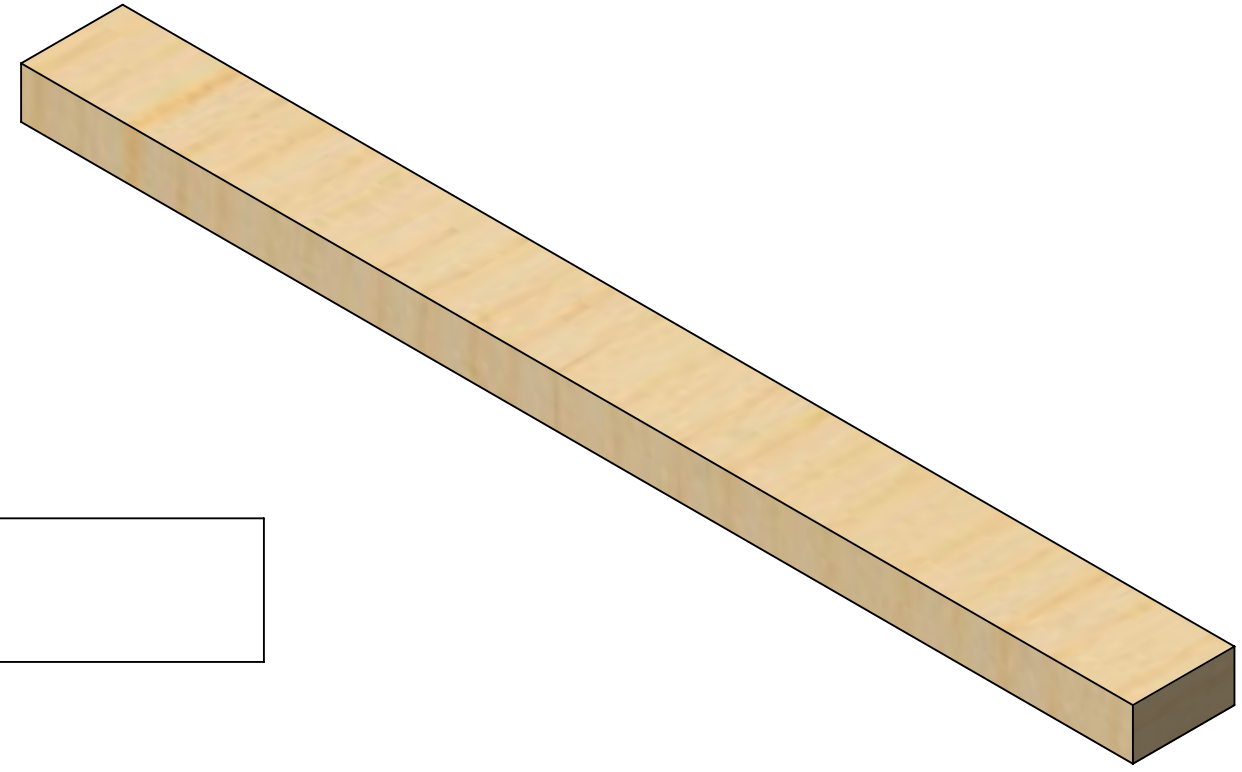
- NOTES:  
 1. MATERIAL: Plywood.  
 2. FINISH: NONE.  
 3. REMOVE ALL SHARP EDGES.





2013M	02	BOTTOM BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY <b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 <b>HONEY BEE RESEARCH CENTRE          THE UNIVERSITY OF GUELPH</b>	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		<b>BOTTOM BOARD</b>	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 3/3/2024 DATE 3/3/2024 DATE 3/3/2024		TITLE <b>2015M</b>	
		SCALE 1:4		WEIGHT 174.298 g	
				SHEET 6 OF 14	

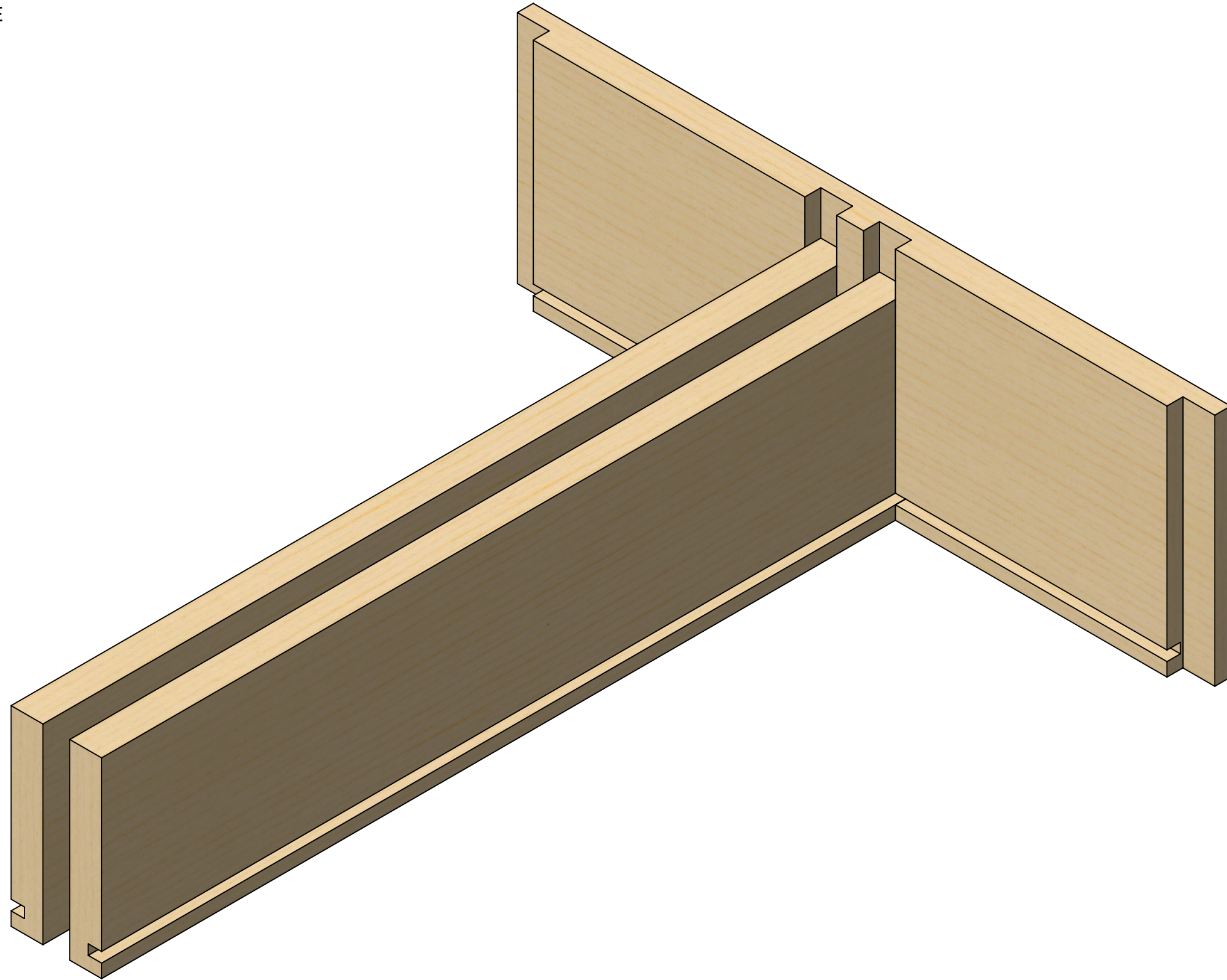
- NOTES:  
 1. MATERIAL: Pine.  
 2. FINISH: PAINT OR STAIN.  
 3. REMOVE ALL SHARP EDGES.





1010M	02	CLEAT HANDLE - OPTIONAL
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 <b>HONEY BEE RESEARCH CENTRE</b> <b>THE UNIVERSITY OF GUELPH</b>
	<b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.	
THIRD ANGLE PROJECTION 	CUSTOMER: BEE KEEPERS PROJECT: HIVE PRODUCTS DRAWN BY: F. FULKERSON CHECKED BY: P.G. KELLY APPROVED: P.G. KELLY	DATE: 3/3/2024 DATE: 3/3/2024 DATE: 3/3/2024
SIZE: <b>B</b>		DRAWING NO: <b>2015M</b> - SCALE: 1:2 WEIGHT: 102.120 g
		SHEET 7 OF 14

NOTES:  
 1. GLUE AND ASSEMBLE TWO MIDDLE  
 BOARDS INTO END BOARD.

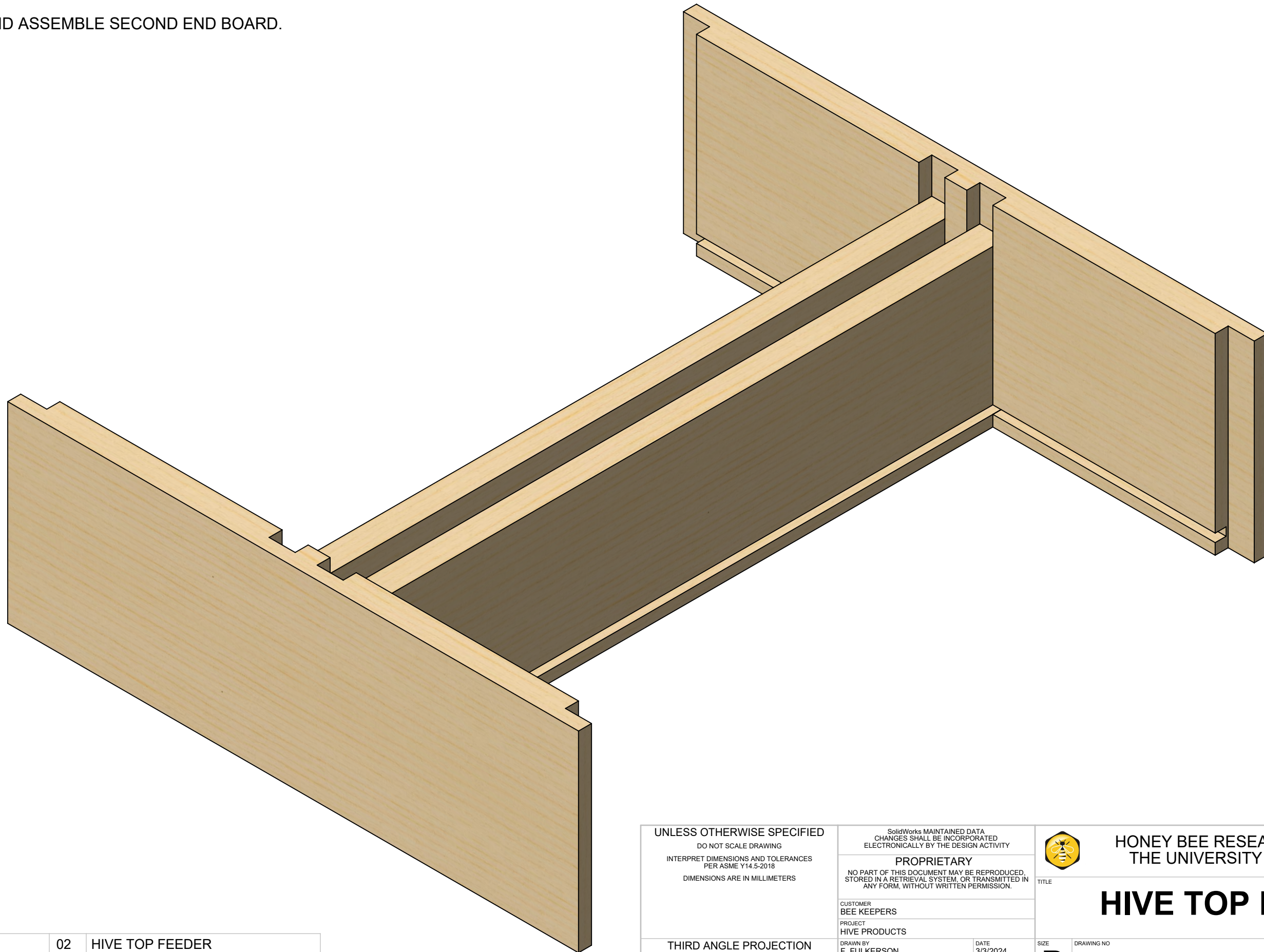


2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION



UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	TITLE	
	<b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		<b>HIVE TOP FEEDER</b>	
THIRD ANGLE PROJECTION 	CUSTOMER BEE KEEPERS	DRAWING NO		
	PROJECT HIVE PRODUCTS	SIZE <b>B</b>	<b>2015M</b> -	
	DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY	DATE 3/3/2024 DATE 3/3/2024 DATE 3/3/2024	SCALE 1:2	WEIGHT 2767.032 g



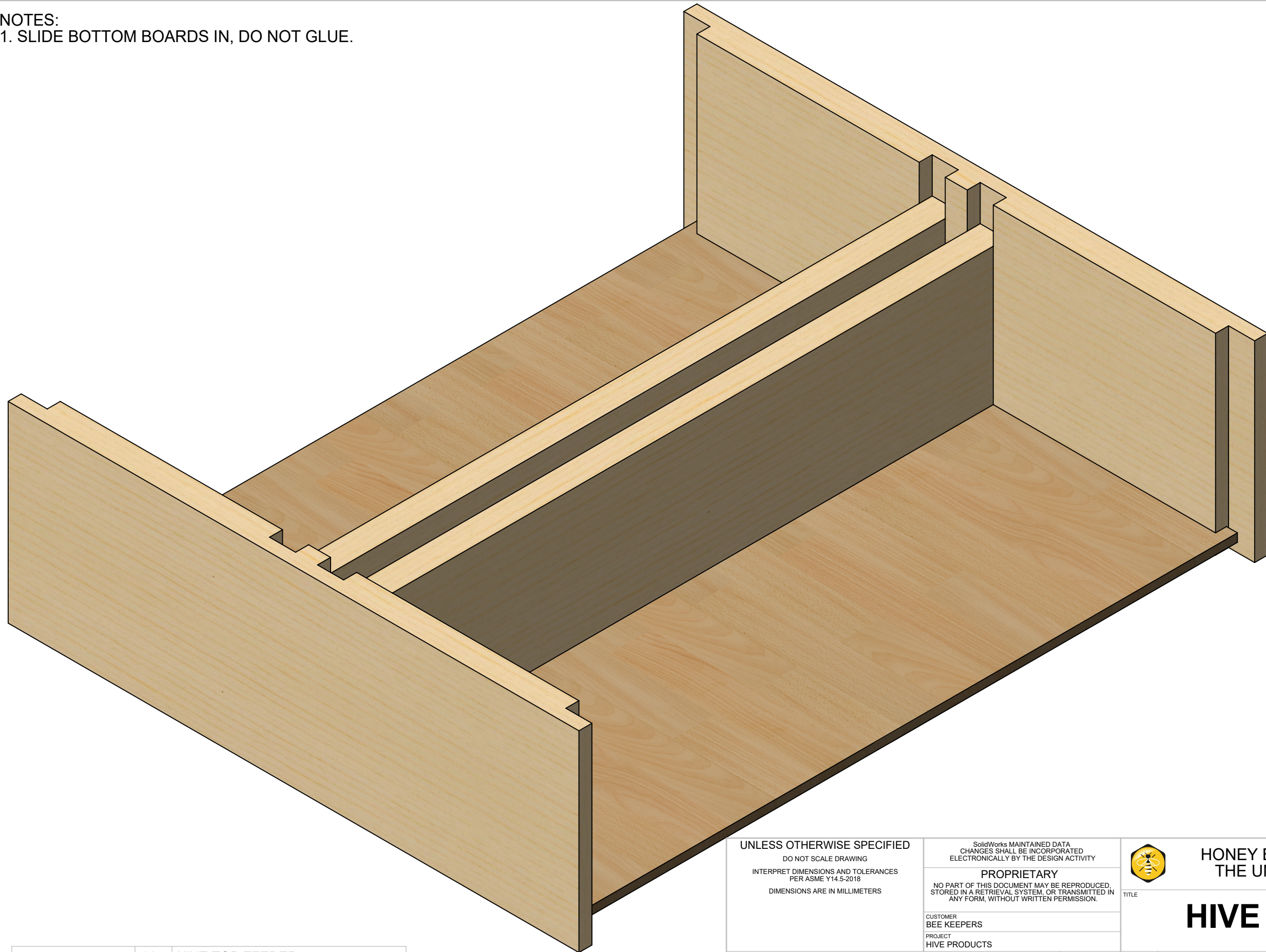
NOTES:  
 1. GLUE AND ASSEMBLE SECOND END BOARD.



2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

<p>UNLESS OTHERWISE SPECIFIED</p> <p>DO NOT SCALE DRAWING</p> <p>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</p> <p>DIMENSIONS ARE IN MILLIMETERS</p>		<p>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</p> <p><b>PROPRIETARY</b></p> <p>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</p>		 <p>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</p>	
<p>THIRD ANGLE PROJECTION</p> 		<p>CUSTOMER BEE KEEPERS</p> <p>PROJECT HIVE PRODUCTS</p>		<p>TITLE</p> <p><b>HIVE TOP FEEDER</b></p>	
<p>DRAWN BY F. FULKERSON</p> <p>CHECKED BY P.G. KELLY</p> <p>APPROVED P.G. KELLY</p>		<p>DATE 3/3/2024</p> <p>DATE 3/3/2024</p> <p>DATE 3/3/2024</p>		<p>SIZE <b>B</b></p> <p>SCALE 1:2</p> <p>WEIGHT 2767.032 g</p>	
				<p>REVISION</p> <p><b>2015M -</b></p> <p>SHEET 9 OF 14</p>	

NOTES:  
 1. SLIDE BOTTOM BOARDS IN, DO NOT GLUE.



2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED  
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 INTERPRET DIMENSIONS AND TOLERANCES  
 PER ASME Y14.5-2018  
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
 CHANGES SHALL BE INCORPORATED  
 ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**  
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 STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN  
 ANY FORM, WITHOUT WRITTEN PERMISSION.

CUSTOMER  
 BEE KEEPERS

PROJECT  
 HIVE PRODUCTS

DRAWN BY  
 F. FULKERSON


CHECKED BY  
 P.G. KELLY

APPROVED  
 P.G. KELLY

DATE  
 3/3/2024

DATE  
 3/3/2024

DATE  
 3/3/2024



HONEY BEE RESEARCH CENTRE  
 THE UNIVERSITY OF GUELPH

TITLE  
**HIVE TOP FEEDER**

SIZE  
**B**

DRAWING NO  
**2015M**

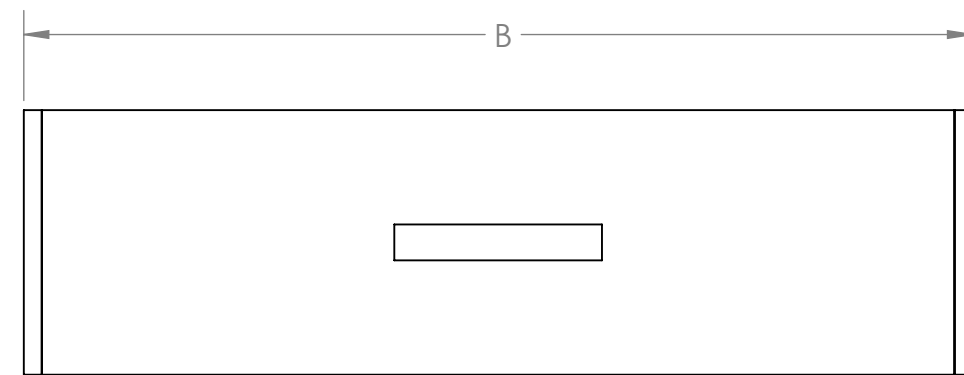
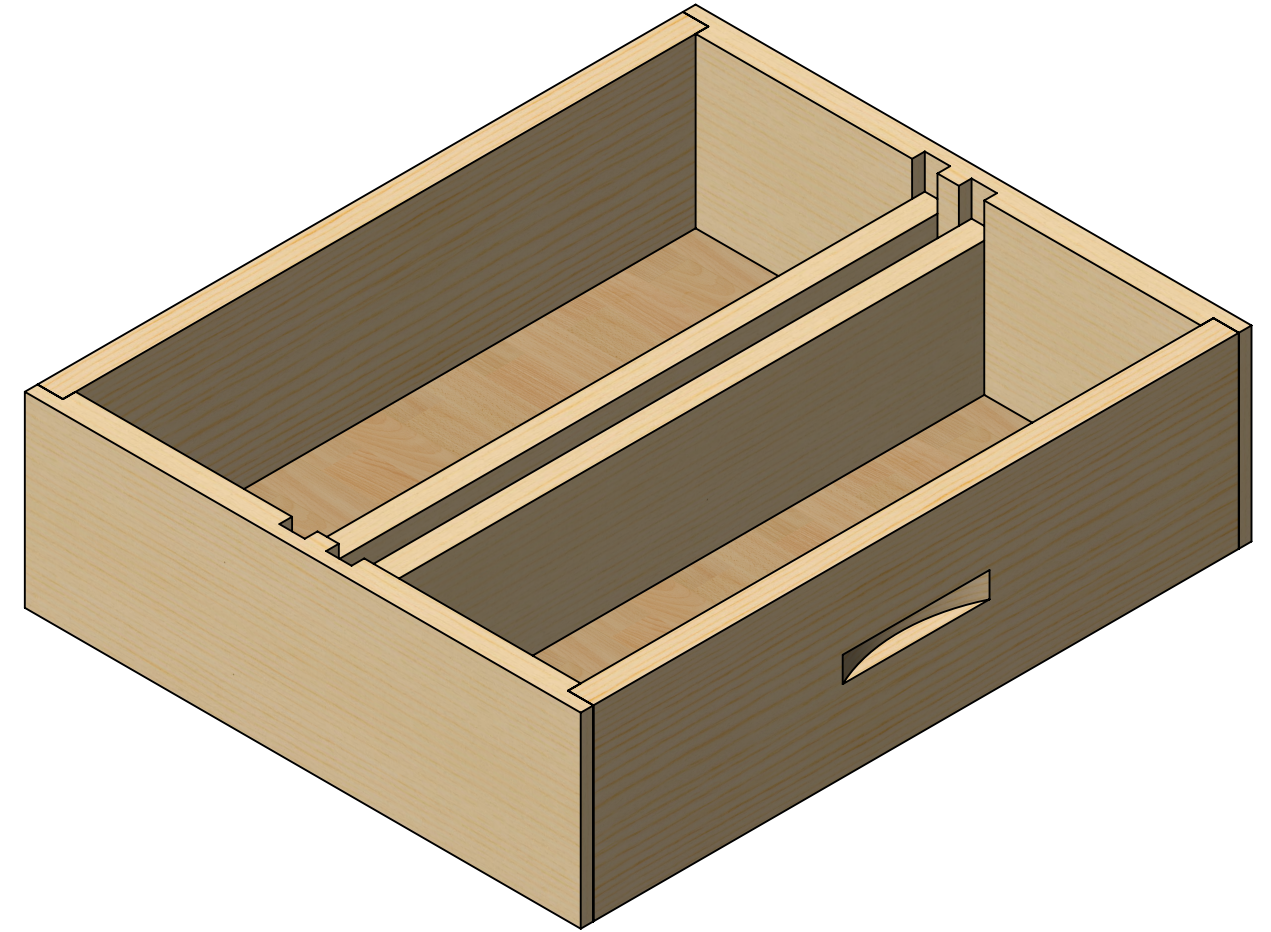
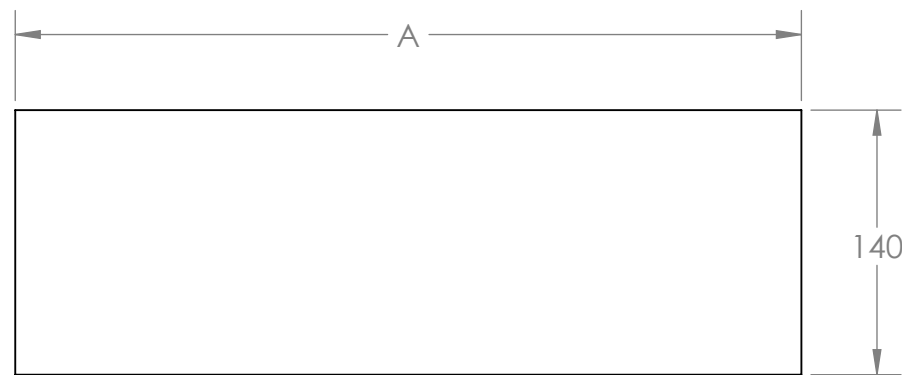
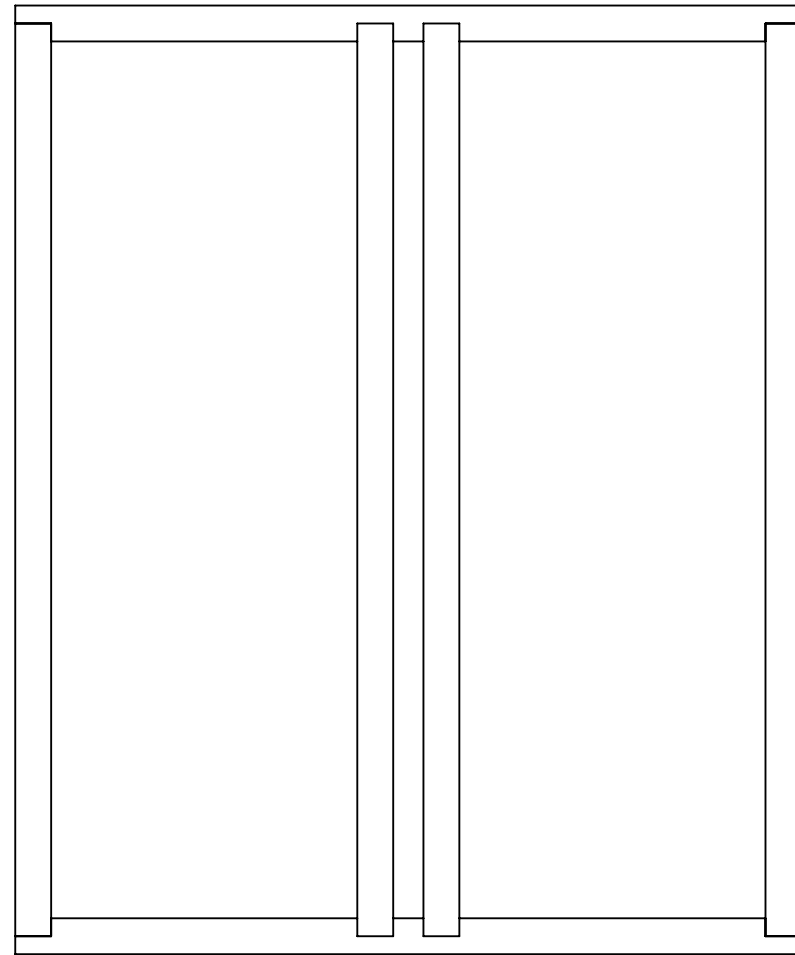
SCALE  
 1:2

WEIGHT  
 2767.032 g



REVISION  
**-**

SHEET 10 OF 14

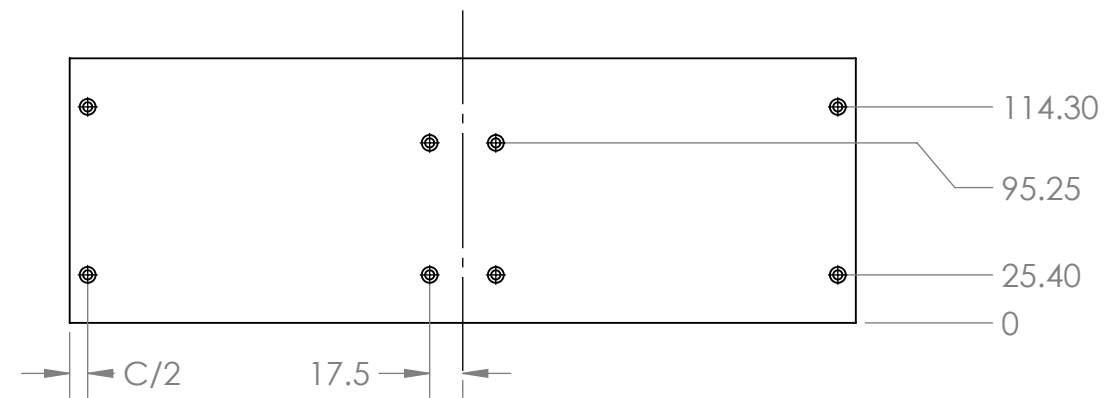
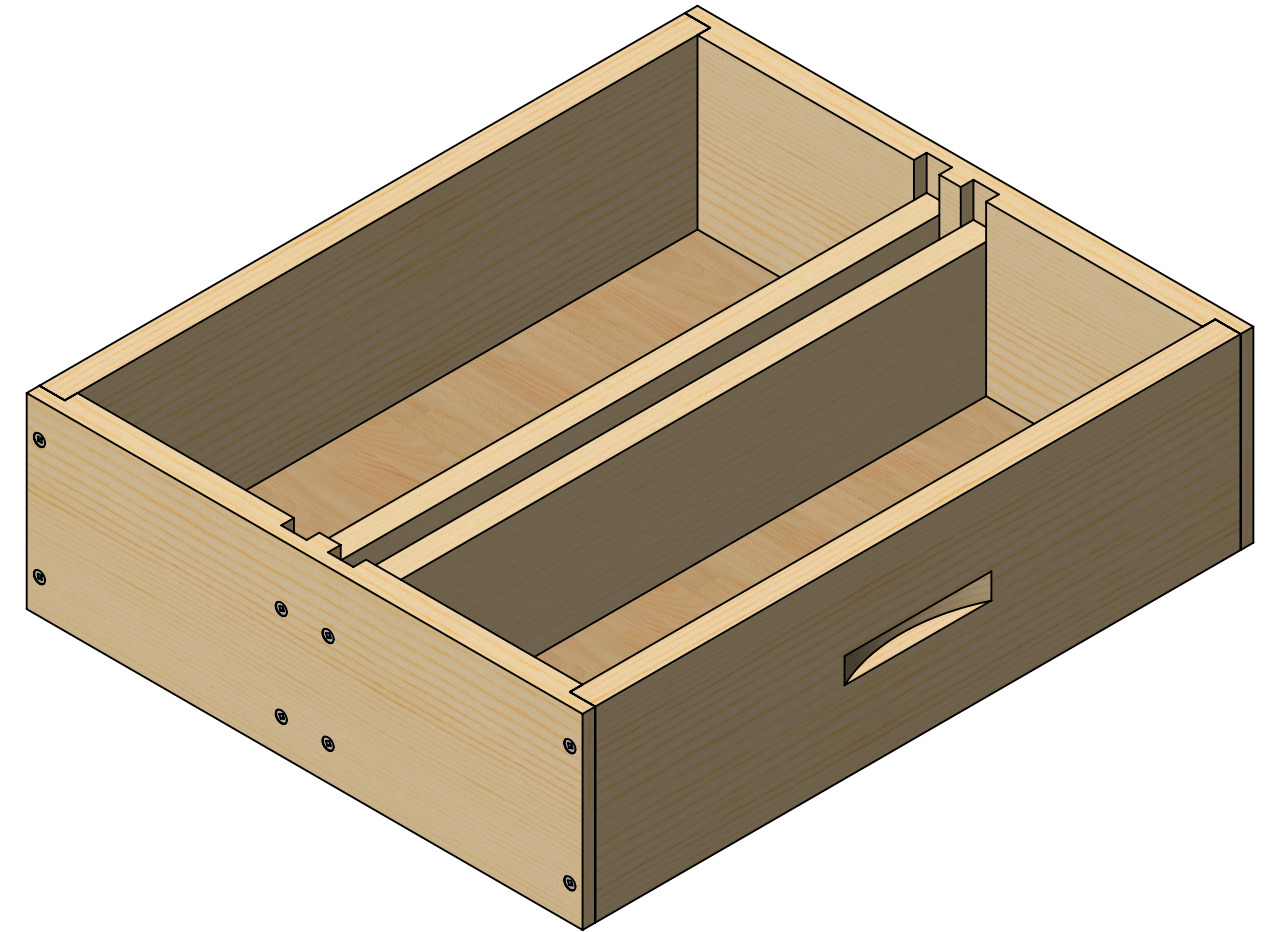
NOTES:  
1. GLUE AND ADD SIDE BOARDS.





2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

<p>UNLESS OTHERWISE SPECIFIED</p> <p>DO NOT SCALE DRAWING</p> <p>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</p> <p>DIMENSIONS ARE IN MILLIMETERS</p>		<p>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</p> <p><b>PROPRIETARY</b></p> <p>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</p>		 <p>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</p>	
<p>THIRD ANGLE PROJECTION</p> 		<p>CUSTOMER: BEE KEEPERS</p> <p>PROJECT: HIVE PRODUCTS</p> <p>DRAWN BY: F. FULKERSON DATE: 3/3/2024</p> <p>CHECKED BY: P.G. KELLY DATE: 3/3/2024</p> <p>APPROVED: P.G. KELLY DATE: 3/3/2024</p>		<p>TITLE: <b>HIVE TOP FEEDER</b></p>	
		<p>SIZE: <b>B</b></p>	<p>DRAWING NO:</p>	<p>REVISION: <b>2015M -</b></p>	
		<p>SCALE: 1:4</p>	<p>WEIGHT: 2767.032 g</p>	<p>SHEET 11 OF 14</p>	

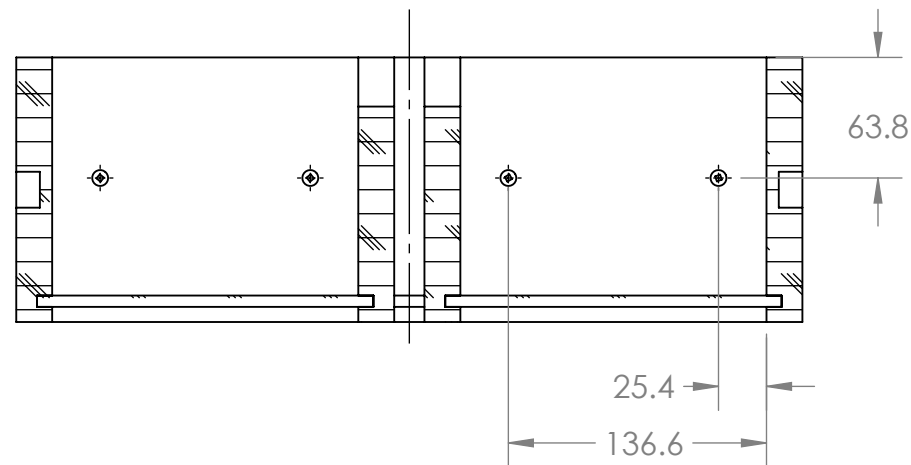
NOTES:  
 1. SQUARE BOX AND ADD FASTENERS,  
 PREDRILL HOLES FOR SCREWS.



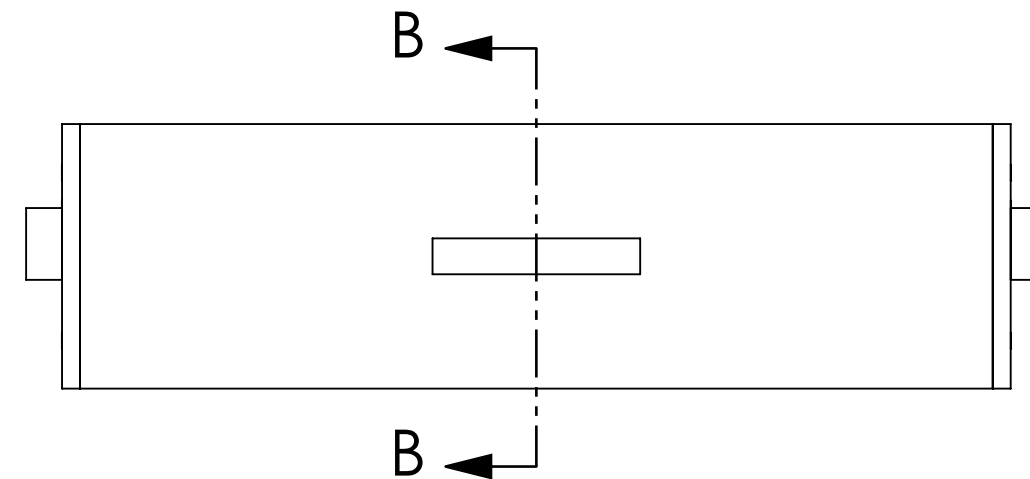
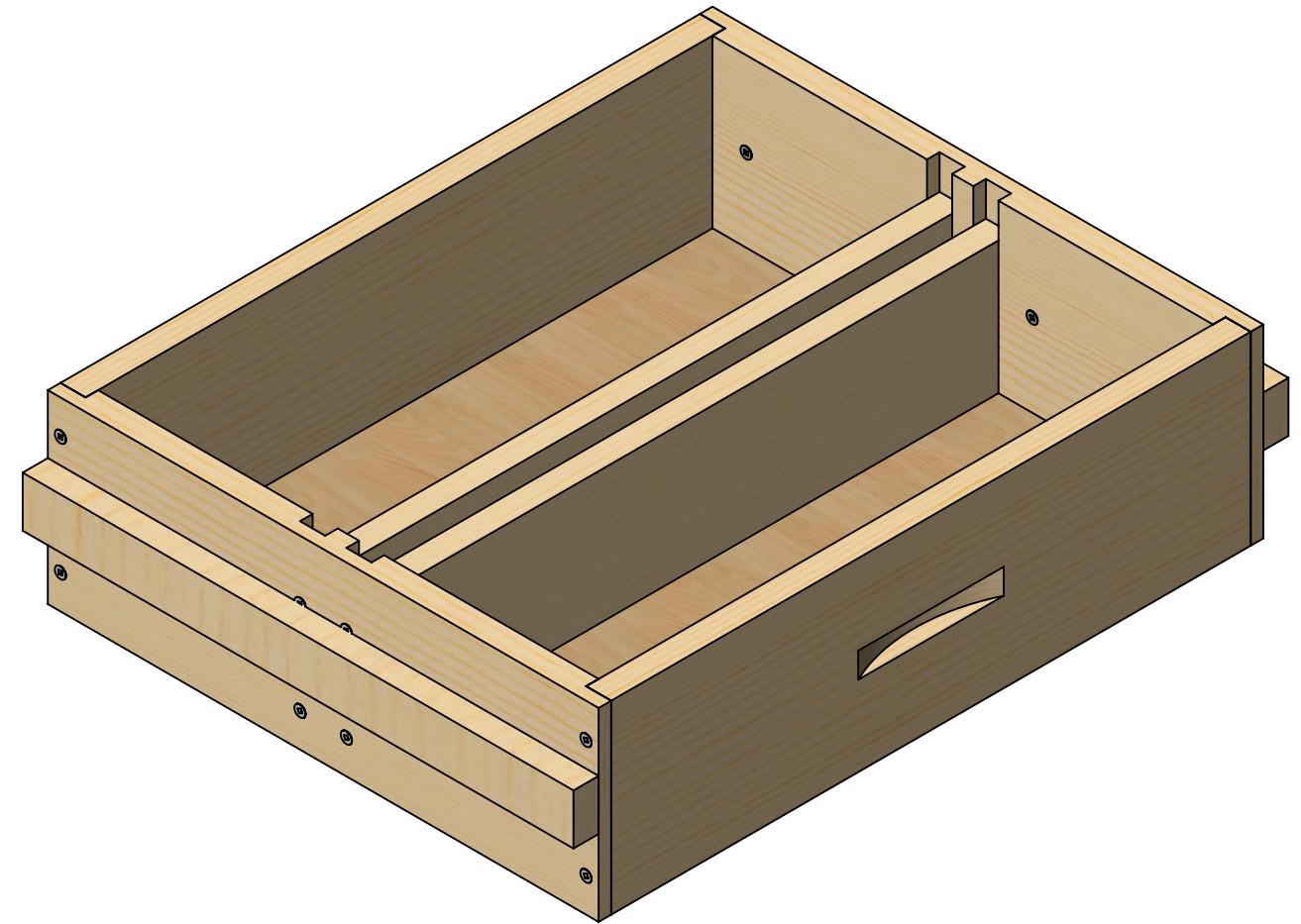
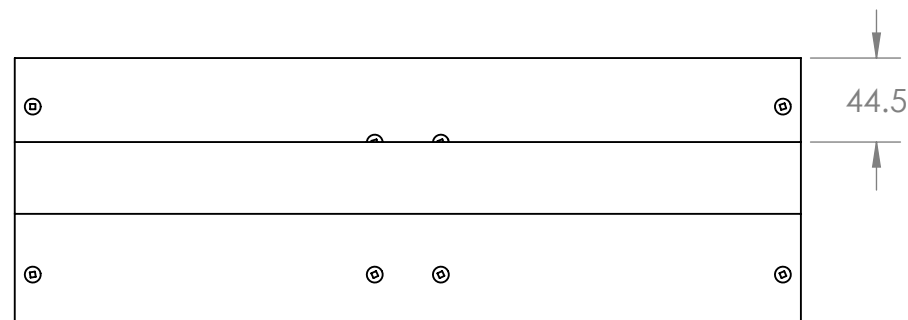
2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH
	<b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.	
THIRD ANGLE PROJECTION 	CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS	TITLE <b>2015M</b>
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY	DATE 3/3/2024 DATE 3/3/2024 DATE 3/3/2024	SIZE <b>B</b> SCALE 1:4 WEIGHT 2833.319 g
		SHEET 12 OF 14



- NOTES:  
 1. GLUE AND CLAMP HANDLES IN PLACE.  
 2. ADD FASTENERS.  
 3. PAINT OR STAIN EXTERIOR.  
 4. CAULK INSIDE.  
 5. SEAL BY DIPPING IN HOT PARAFIN WAX.



SECTION B-B

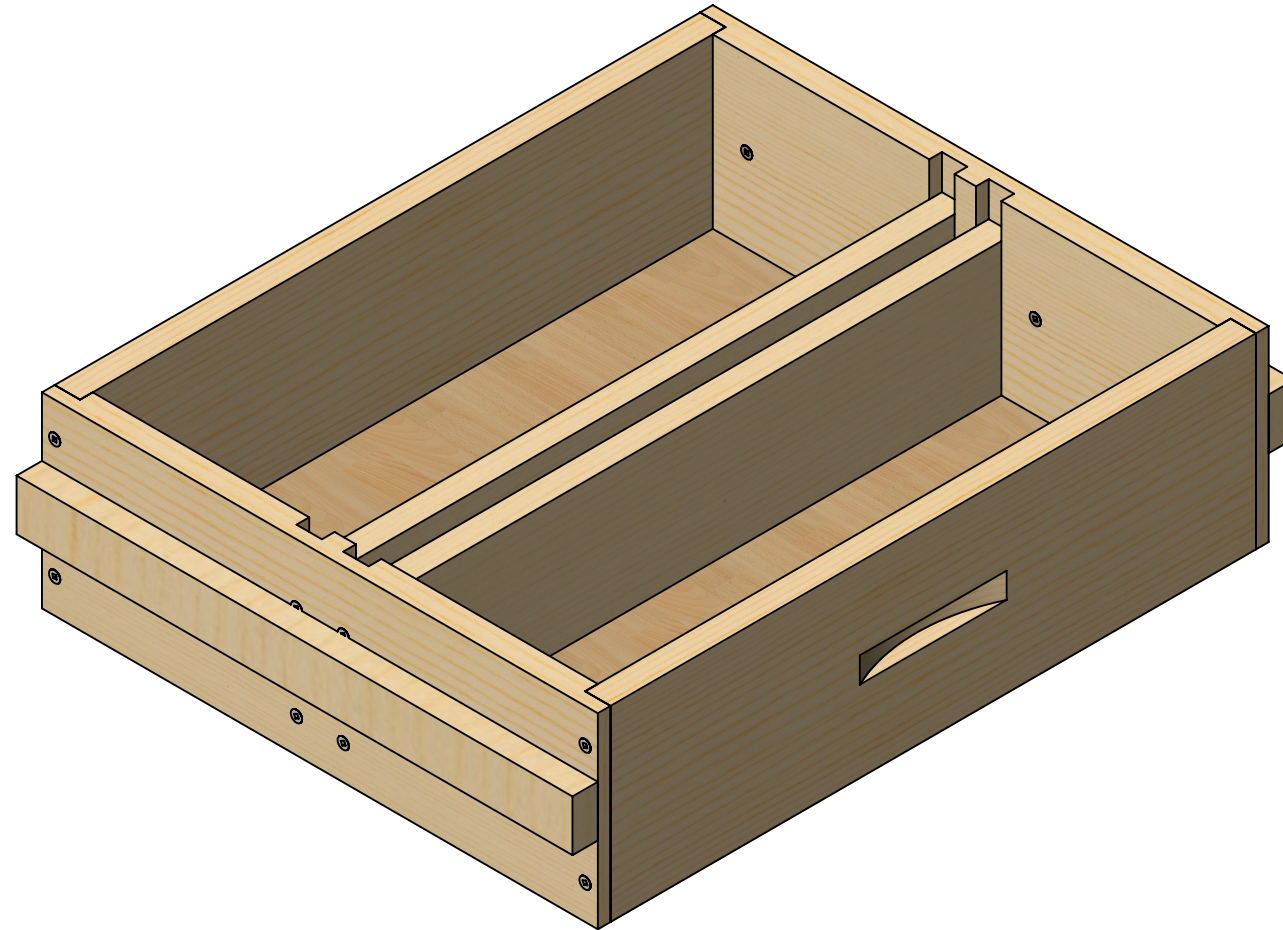


2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION



UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	TITLE <h1>HIVE TOP FEEDER</h1>		
	PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		CUSTOMER BEE KEEPERS	SIZE <b>B</b>	DRAWING NO. <b>2015M</b>
THIRD ANGLE PROJECTION 	DRAWN BY F. FULKERSON	DATE 3/3/2024	SCALE 1:4	WEIGHT 2834.948 g	SHEET 13 OF 14
	CHECKED BY P.G. KELLY	DATE 3/3/2024			
	APPROVED P.G. KELLY	DATE 3/3/2024			

**NOTES:**

1. CUT #8 HARDWARE MESH TO SUIT AND STAPLE TO MIDDLE BOARDS.
2. ADD 50 MM OF CLEAN STRAW TO EACH SIDE.
3. DRIZZLE A SMALL AMOUNT OF SYRUP DOWN THE MIDDLE OPENING TO ENCOURAGE BEES TO START WORKING ON THE FEED.



2015M	02	HIVE TOP FEEDER
PART NUMBER	REV	DESCRIPTION

<p><b>UNLESS OTHERWISE SPECIFIED</b></p> <p>DO NOT SCALE DRAWING</p> <p>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</p> <p>DIMENSIONS ARE IN MILLIMETERS</p>		<p><small>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</small></p> <p><b>PROPRIETARY</b></p> <p><small>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</small></p>		 <p><b>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</b></p>	
<p><b>THIRD ANGLE PROJECTION</b></p> 		<p>CUSTOMER BEE KEEPERS</p> <p>PROJECT HIVE PRODUCTS</p>		<p><b>HIVE TOP FEEDER</b></p>	
<p>DRAWN BY F. FULKERSON</p> <p>CHECKED BY P.G. KELLY</p> <p>APPROVED P.G. KELLY</p>		<p>DATE 3/3/2024</p> <p>DATE 3/3/2024</p> <p>DATE 3/3/2024</p>		<p>SIZE <b>B</b></p> <p>SCALE 1:4</p>	
		<p>WEIGHT 2834.948 g</p>		<p><b>2015M</b> -</p> <p>SHEET 14 OF 14</p>	